

15. Notes on the Pairing of the Land-Crab, *Cardisoma armatum*. By Miss L. E. CHEESMAN, F.E.S., F.Z.S., Curator of Insects to the Society.

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As nothing is recorded of the life-history of this species, it was desirable to encourage the pairing of those specimens under observation in the Insect House. Few females, however, have been collected. Of the three consignments of these crabs kindly sent to us by Captain Armitage from the neighbourhood of the mouth of the River Gambia, the first, received in September 1921, consisted of nine males; the second, received in March 1922, consisted of fourteen males, and two small females which died in less than a fortnight. The third consignment, received in July 1922, consisted of thirteen males and two females, one small and one of medium size.

The larger female was placed with a male in a separate bay containing sand and coarse gravel a foot and a half in depth, and a tank of fresh water. The male dug a vertical burrow in one corner, and the female dug a horizontal tunnel in the centre of the bay. The male fed in the daytime, but the female was rarely seen until an hour after closing-time. Both crabs took boiled rice, boiled and raw potatoes, and dry leaves; the male (but not the female) fed also on pieces of raw meat and fish.

In the first week of August the female's tunnel had a second opening on the side nearest the male's burrow, and for the next fortnight they shared the tunnel; neither of the crabs were seen in the daylight during that time, unless disturbed. At the end of a fortnight the male dug a new burrow, and was not afterwards found in the female's burrow.

On August 26th the male was removed, and two tanks were placed in the bay, one of fresh water, the other of sea-water renewed weekly. The female only emerged at night after that date. All the females we have had under observation have been reluctant to show themselves above ground before dusk; this probably accounts for their being less easy to procure than the males. This female came out every three or four nights to feed and bathe, but any movement, or the switching on of the electric lights, caused her to retire to her burrow; if she was out on the other nights she did not feed, for the food was untouched. She was only twice seen in the sea-water tank. If she did not appear for three days the burrow was opened, otherwise she was not disturbed.

On September 18th, 1922, the crab was discovered to be in spawn.

On September 22nd a portion of the eggs was severed from her and sent to Professor McBride at the Imperial College of Science. The crab cast the rest of the eggs that night.